

## Key Findings

### Responding to Recession: IT Funding and Cost Management in Higher Education

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From 2007 to 2010 the United States economy experienced its worst period of decline since the 1930s. The effects of recession can be seen in examples both large and small. Stock indices lost half their value, corporate profits turned into steep losses, and many firms were forced to merge, seek bankruptcy protection, or simply go out of business. Communities have been altered by sharp declines in home values and rising rates of foreclosures. Individuals have suffered long-term unemployment or reduced wages. At the low point in the recession, there was significant fear that the banking sector could collapse and the economy would move into a prolonged depression. Fortunately, the resiliency of the economy, unprecedented levels of fiscal stimulus, and continued growth in emerging economies such as China and India appear to have pulled the economy out of recession. The recovery is still relatively fragile and sensitive to world events, but the U.S. economy is growing again. Enthusiasm for the recovery is, however, tempered by persistently high unemployment and slow job growth.

The recession arrived on the doorstep of higher education in 2008. Billions of dollars were lost from institutional endowments, states cut spending on public higher education, and frozen credit markets raised the cost of institutions' existing debt and essentially ended the prospects of obtaining any new financing for many institutions. The loss of endowment income and state support, along with rising debt costs, created a significant hole in institutional operating budgets that sent many into deficit. In October of 2008, the credit crisis in the banking industry spilled over into higher education as nearly 1,000 institutions temporarily lost access to much of their assets invested with Commonfund. Colleges and universities had used this fund to hold their most liquid assets and depended on continued access to it to fund their payroll and other near-term operating expenses.<sup>1</sup> While institutions eventually gained access to a sufficient portion of their investments to continue to meet their short-term expenses, the Commonfund experience, coupled with the continued deterioration of the economy, sharpened the focus on the severity of the recession.

Since 2008, many institutions have experienced multiple rounds of budget cutting. Some of the cuts were in direct reaction to the lost revenue from endowment income and state support. Others cut in order to resize their expenses to be in line with more conservative assumptions about future revenues. Fiscal plans and long-range budgets were rewritten to assume lower rates of tuition increases (at private institutions), decreased state funding (at public institutions), multiple years of reduced endowment earnings, and increased expenditures for institutional financial aid to offset declines in family assets and income.

Despite budget cuts and the very real impacts created by staff layoffs, salary freezes, and furlough programs, higher education has fared well during the recession, relative to other industries. We have not seen the magnitude of layoffs, consolidation, and lost revenues that have buffeted financial services, automobile companies, manufacturing, and retail sectors of the economy. Higher education entered the recession having enjoyed a prolonged period of growth fueled by increased tuition revenue, growing demand for education, and increased levels of federal and private support for research. Institutions have always benefited from countercyclical forces during periods of economic decline. Recessions swell enrollments as adult learners retool their skills and undergraduates delay entry into a soft job market by pursuing graduate degrees. Higher education is also helped by the government's efforts to stimulate the economy. The American Recovery and Reinvestment Act (ARRA) put hundreds of millions of dollars into the economy. Some was directly granted to institutions of higher education to fund construction projects, support faculty research, and expand educational opportunities for job seekers. In technology, the funds supported expanding regional networks and helping academic medical centers implement electronic health records systems. ARRA also provided significant funding to states to close their fiscal deficits and likely forestalled the need to make even deeper cuts in support of higher education.

The central question of this study was how the recession impacted information technology (IT) organizations and operations. IT is a significant area of expenditure at most institutions, and we expected that IT organizations would be asked to absorb at least a share of institutional budget cuts. IT is also an area of investment that can be used to fuel productivity gains, create cost savings, or enable strategies to increase revenues. In this vein, we thought institutions might increase their level of investment in technology to help cope with changed financial circumstances.

We pursued the notion that a crisis is also an opportunity to take more aggressive action to introduce changes that under normal circumstances would not be politically or culturally possible. The IT community was already in significant discussion about how forces such as cloud computing, mobile devices, the explosion of data, green IT, and multi-institutional collaborations could transform how technology is used and managed. Would the economic crisis serve as a catalyst for more extensive or aggressive action to change IT?

## Methodology

To study the effects of the recession on IT funding and management, we employed a multipart approach:

- a literature review to further our understanding of higher education's present and future financial outlook and the methods organizations have employed to reduce their IT costs;
- a quantitative web-based survey of EDUCAUSE member institutions completed by 319 institutions, 83.4% of which were answered by the institution's chief information officer or equivalent;
- qualitative interviews with 20 IT leaders to deepen our understanding of survey findings in critical areas; and

- an online, real-time Delphi process that solicited the opinions of a panel of experts on how the recession has impacted IT organizations and the potential of technology to transform higher education's future costs and revenues.

## Key Findings

Our research was framed by a series of questions and hypotheses regarding the recession's impact on the level of IT funding, the strategies and tactics institutions employed to reduce IT costs, and the lasting impacts of the recession on the role of technology. The framing questions were translated into several different areas of inquiry within our quantitative and qualitative research. These areas include:

- *State of IT funding*—changes to IT operating and capital budgets since FY2007–2008, relationship between changes to IT operating budgets and total institutional operating budgets, and the adequacy of present funding levels to sustain secure, reliable technology, foster innovation, and meet strategic technology goals.
- *Cost management strategies*—approaches to reducing IT costs and meeting budget reduction targets, including the degree of control IT organizations had over how to cut their budgets, the scope of IT cost management efforts, the predominant cost-cutting philosophy (reducing costs by reducing service or preserving service while reducing costs by restructuring service delivery), and the outcomes achieved.
- *Cost management tactics and outcomes*—tactics employed to reduce IT costs across a broad spectrum of areas including IT personnel management, IT budget management, IT project portfolio management, support services and technology management, and the relationship of between tactics adopted and institutions' ability to reduce IT costs and introduce substantial change to how technology is managed.
- *Positioning of IT and the IT leader*—the extent to which technology was viewed as a cost center or asset to invest in during the recession, the impact of the recession on the senior-most IT leader's ability to influence executive decision making, and expectations for the future importance of technology to institutions and future approaches to technology management.

In the following sections we summarize our main findings.

### State of IT Funding

One of the more surprising findings of our research was the shallowness of budget cuts that most respondent institutions experienced in light of the turmoil taking place in the broader economy. While a small majority of respondents (53%) reported a decrease in their central IT operating budgets from FY2007–2008 to FY2009–2010, the magnitude of the decrease for most was less than we anticipated. Nearly a third of respondents (30%) reported an aggregate change of between 0% and 4%. Even more surprising, a similar percentage of respondents (31%) reported that their central IT operating budgets had increased over this same period, including 15% who reported increases of 5% or more.

Some institutions did not fare as well. Nearly a quarter of respondents experienced reductions of 10% or more to the central IT operating budget, including 10% who experienced a decrease of 15% or

more. However, the budget reduction challenges that most respondents faced were much less severe, with many experiencing flat or increasing budgets and only about a third reporting declines that exceeded 5%. We recognize that a 5% decline or even a flat budget for an IT organization whose funds may be largely committed to keeping core technologies functioning has a significant impact. On the other hand, for all but the leanest of organizations, reductions of this magnitude can be absorbed without necessitating major restructuring or significant cuts in service.

There are several possible explanations for the lower-than-expected declines in institutional and central IT operating budgets that we observed. It is possible that institutions suffering deeper budget cuts were less inclined to complete our survey due to a lack of time or the sensitivity of the topic. It is also possible that for many respondents the recession's impact was offset in part by the effects of government spending to stimulate the economy. It is estimated that the ARRA, when fully implemented, could provide between \$50 billion and \$100 billion of added funding for higher education in 2009 and 2010.<sup>2</sup> Institutions also may have been able to increase their tuition revenues as more adults returned to school to retool their skills. While these new revenues were likely insufficient to offset completely the decline in endowment earnings and state support that the recession created, they likely partially offset their impacts and allowed institutions to cut less.

The timing of our research may have captured only an initial wave of budget cuts that could be followed by additional years of flat or declining budgets. We asked respondents to state their expectations for their combined central IT operating and capital budgets for FY2010–2011. A slight majority expect a major or minor decrease in total central IT budget for FY2010–2011, with most of these respondents expecting the decrease to be minor. Another quarter of respondents expect their budgets to remain flat.

In the near term, many of the respondents with central IT operating budgets that have grown expect their budgets to hold at current funding levels or grow slightly. Respondents who have enjoyed increased budgets were more optimistic than those whose IT budgets had been reduced. Among respondents who reported an increase in the central IT operating budget since FY2007–2008, 43% anticipate a minor or major increase in the total central IT budget in FY2010–2011. In contrast, only 9% of respondents who experienced a decrease over the past two years anticipate an increase in the coming fiscal year. Respondents from public institutions were more pessimistic about the next budget year. Almost three-fourths of them (73%) expect their FY2010–2011 total central IT budget to have a major or minor decrease from present levels. By comparison, fewer than a third of respondents from private institutions (29.5%) reported similar expectations.

## Why Some IT Budgets Grew

We asked respondents who reported that their central IT budgets had increased to identify the primary reasons. The most frequently selected reasons were to sustain basic IT infrastructure, support a project already under way, or resource an increase in the scope of responsibilities of the central IT organization. Given this set of reasons, it is possible that some respondents enjoyed increased budgets as part of a multiyear investment approved and funded in the years prior to the economic downturn. If these initiatives were large infrastructure projects funded by debt already assumed by their institutions, they may have been exempted from budget-cutting exercises. Or, projects that were already under way may have been too far along to effectively halt in order to

recoup any immediate savings. Given contractual commitments for equipment and services required by projects, it just may not have been practical for respondents to reduce their IT spending. It is also possible that respondents saw the investments they were making as essential and were not prepared to give them up even as budgets tightened.

## IT Cost Management Strategies

IT cost management strategies for most focused on total institutional costs and sought to save money without affecting service. Most respondents (84%) reported that since FY2007–2008, their central IT organization had been engaged in efforts to reduce IT costs. Among the 16% of respondents who reported that no IT cost reductions were necessary at their institutions, about three-quarters had experienced flat or increasing central IT budgets from FY2007–2008 to FY2009–2010. IT cost management efforts for most were focused on their total institutional IT costs and not just the central IT organization. Two-thirds of respondents described their approach to cost reduction as reducing costs without reducing service or service levels. A small minority (17%) said that they were reducing costs by reducing service levels, and the remainder reported that no cost reductions were necessary.

The challenges institutions faced to reduce their IT costs were primarily cultural. We asked respondents reporting a decrease in their central IT operating budget from FY2007–2008 to FY2009–2010 to identify the barriers to cost reduction that they had to overcome. As Table 1 reports, the issues most frequently identified as barriers limiting respondents' ability to reduce IT costs were the unacceptability of reducing service levels (49.1%) and resistance to change from outside the central IT organization (32.5%). Some cost reduction strategies such as consolidating data centers, migrating to standard technologies (e.g., consolidating e-mail systems), or leveraging new technologies (e.g., virtual servers) require institutions to spend money in order to save money. We suspected that in the midst of declining institutional budgets and tightening credit markets, institutions might be reluctant or in some cases unable to make one-time investments even if they offered an attractive payback. For some respondents, this was in fact an issue. Almost a third of respondents with decreased central IT operating budgets (29.4%) reported that the lack of up-front funding to induce savings was a top-three factor limiting IT cost reduction.

**Table 1. Factors Limiting Institution's Ability to Reduce IT Costs**

<b>Which of the following factors are most significantly limiting your institution's ability to reduce IT costs in response to the budget crisis? (Select up to three)</b>	<b>Percentage Selected (N = 163)</b>
Unacceptability of reducing service levels	49.1%
Resistance to change from outside the central IT organization	32.5%
Lack of availability of up-front funding needed to induce savings	29.4%
Insufficient staff skills in central IT	19.6%
Lack of executive sponsorship for change	19.0%
Decentralized nature of IT management	17.8%
Institutional budget policies	16.6%
Collective bargaining agreements	15.3%
Resistance to change from within the central IT organization	11.7%
Other	11.7%

## Was the Crisis Also an Opportunity?

One of the objectives of this research study was to examine whether respondent institutions used the recession as an opportunity to implement more aggressive changes than would otherwise be possible. We found that most respondents did not believe that the economic crisis had in fact catalyzed fundamental change. We asked all respondents whether as a result of the economic crisis their institution had fundamentally changed how IT is managed, significantly reduced the cost of IT operations, or implemented technology that had significantly improved staff productivity or increased revenues. On a 5-point scale from strongly disagree to strongly agree, mean responses ranged between disagree and neutral for each statement. In fact, the lowest mean agreement was with the statement that the institution had fundamentally changed how IT is managed. Respondents also disagreed on average that their institutions had significantly reduced the cost of IT operations or implemented IT that had significantly increased revenue. Respondents who experienced a decrease in their central IT operating budget did have higher mean agreement that they had fundamentally changed how IT is managed and significantly reduced the costs of IT operations. However, the mean responses were still between neutral and disagree (Table 2).

**Table 2. Respondents' Assessment of the Economic Crisis as a Driver of Change**

As a result of the economic crisis, my institution has:	Mean*	Std. Deviation
Implemented IT that has significantly improved staff productivity (N = 317)	3.00	0.911
Significantly reduced the cost of IT operations (N = 317)	2.69	1.012
Implemented IT that has significantly increased revenues (N = 317)	2.56	0.792
Fundamentally changed how IT is managed (N = 319)	2.37	0.948

*\*Scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree*

The results left us to ask whether there was no crisis to waste or institutions had been willing to waste the crisis they had. Perhaps the magnitude of the fiscal challenges most respondents faced never became great enough to require fundamental change as a response. As bad as things were, they may not have been bad enough to overcome higher education's innate resistance to change that comes too fast or looks too radical. Looking beyond IT to the academy as a whole, we have seen few examples of substantial change or aggressive risk-taking. It is impractical and unwise for IT leaders to get too far out in front of their institutional leadership in calling for change. It may also be a sign that leaders are still somewhat ambivalent about the benefits of some of the more substantial changes available to them. Cloud computing, software as a service, and multi-institutional collaborations promise savings through economies of scale. But, their track records are relatively short, some are difficult to implement, and all carry risks that must be managed.

## How Cost Savings Were Achieved

Implementing budget cuts presents leaders with trade-offs and choices. Leaders must consider not only what parts of their budget to cut but also how quickly various actions will generate savings, whether those savings are one-time or recurring, and the relative difficulty of implementing the changes necessary to bring about the savings. A strategy that focuses only on short-term measures that bring about immediate but unsustainable savings is fine if a downturn is short, but problematic if declining budgets persist. Conversely, a focus that is too dependent on implementing complex but

sustainable cost reductions may not produce enough short-term savings and can quickly tax an organization's capacity to absorb change. To understand the actions that institutions took to achieve cost savings since FY2007–2008, we asked respondents to report the state of adoption of 37 cost management actions. The actions were organized into five categories: IT personnel management, IT financial management, IT project portfolio, IT management (e.g., standards, technology adoption choices), and IT support services.

Examining the patterns of adoption across the various categories revealed that in most cases institutions took actions that would yield cost savings quickly, were largely within the control and prerogative of the central IT leader to implement, and had less direct impact on IT's campus constituents. Many were typical early responses to budget downturns—for example, hiring freezes, cuts to travel and training budgets, spending down of reserves, and elongating replacement cycles. There were certainly some instances of institutions' taking actions that introduced a greater degree of long-term change to technology and technology management. For example, some respondents reported consolidating multiple IT support organizations, consolidating local server management and storage into an enterprise service, or retiring duplicative or underutilized technologies. However, adoption of these strategies was lower than for many of the actions that provided more immediate changes.

Chapter 6 provides a complete analysis of the adoption of each action. Highlights from our findings in each category are described below. All percentages reported are for the subset of respondents whose institutions were focused on IT cost management.

### ***IT Personnel Management***

The practices that had been adopted most frequently were reduction of travel budgets, followed by hiring freezes, the elimination of open positions, and reduction of training budgets. Each had been or was being done by the majority of respondents engaged in IT cost management. The remaining practices had been implemented by between 18% and 30% of the IT cost management subset of total respondents. Adoption was lowest for the most difficult and disruptive changes such as staff layoffs, sharing positions with another organization, or consolidating departmental IT organizations.

### ***IT Financial Management***

Majorities of respondents focused on IT cost management reported increased use of university-wide purchase agreements, renegotiation of vendor contracts, and the deferment of capital expenditures. Other actions that respondents had done or were doing at the time of the survey included spending down budgetary reserves (43%), increasing student fees (32%), and increasing pricing for chargebacks (11%).

### ***IT Project Portfolio***

Nearly two-thirds of the subset of respondents focused on IT cost management in the past two years reported that their institutions had or were placing a higher priority on projects that have a higher potential return on investment. Similar percentages of respondents (36%) reported that they had or were currently reducing the scope of active projects or were currently changing their approach to executing projects by bringing more work in house (36%). Few respondents (17%) had canceled or were in the process of canceling active projects.

## ***IT Management***

The fourth category contained 14 actions that fell under the umbrella topic of changes to IT management. Patterns of adoption suggest that some institutions were engaged in practices that could be at the vanguard of changing how IT is managed in the future, such as the adoption of cloud services and the expansion of enterprise solutions for areas that benefit from scale economies. However, a significant portion of respondents had also taken actions that arguably can produce only one-time savings and may place their institutions' technology at greater risk, including deferring hardware replacement cycles, deferring maintenance on systems, and relaxing or deferring disaster recovery plans.

Ten of the 14 actions had been adopted by nearly half or more of the respondents. They include increased use of virtual servers (84%), greater use of standard hardware (76%), extending hardware replacement cycles (73%), consolidating local storage to enterprise service (59%), retiring infrequently used technology (58%), consolidating duplicate platforms or applications (58%), reducing modifications in enterprise software (53%), increased use of open-source software (50%), increased use of enterprise server hosting (46%), and deferred maintenance on major systems/infrastructure (46%). Between 15% and 30% of respondents reported their institutions had done or were doing the following: relaxing/deferring disaster recovery plans (30%), increased deployment of software as a service (SaaS) (28%), increased use of virtual desktops (25%), and increased use of cloud-based enterprise storage (15%).

## ***IT Support Services***

This category included five actions that altered what services were provided, how they were delivered, and the organizations that provided IT support. Among the five, the action that respondents had done or were in the process of doing most was to increase the use of tools to automate support (55%). A third of respondents had reduced or were reducing the number of technologies supported. About a quarter of respondents had consolidated or were consolidating departments that provide IT support (24%) or had outsourced or were outsourcing some IT support services (24%). About a fifth of respondents had reduced or were reducing service levels (21%).

## **Significant Sources of Cost Savings**

We asked respondents to identify which category of cost management actions provided the largest proportion of the IT cost reductions their institutions achieved in the past two fiscal years. No single category dominated. The most frequently selected categories, personnel management and financial management, were each selected by about a quarter of the subset of total respondents, and the three remaining categories were each selected by about 15%. Institutions' expectations for future sources of cost savings did not differ substantially from their assessment of the past two fiscal years (see Table 3).



**Table 3. Source of Largest Proportion of Realized and Projected IT Cost Reductions, by Category**

Category of Action	Largest Portion of Cost Savings	
	Past Two Years (N = 221)	Next Two Years (N = 209)
IT Personnel Management	27.1%	30.1%
IT Financial Management	24.0%	14.4%
IT Project Portfolio	16.3%	21.5%
IT Management	15.8%	16.3%
IT Support	16.7%	17.7%

We observed a relationship between respondents' level of agreement that they had significantly reduced the costs of IT operations as a result of the economic crisis and their adoption of particular cost management actions. Specifically, we found that respondents whose institutions had taken actions to reduce travel and training budgets, freeze or eliminate open positions, spend down budgetary reserves, or extend hardware replacement cycles as part of their IT cost management strategy reported higher mean agreement that their institutions had significantly reduced their IT operating costs.

The actions that often characterized institutions with significantly reduced IT operating costs have several things in common. Each is primarily within the control of IT leaders to implement and has an impact that is localized to the IT group. The one exception could be freezing hiring or eliminating open positions, which would likely degrade service to the institution if it persisted for a long time. However, in the short run, the effect would be predominantly felt by staff members within the IT organization who are asked to increase their productivity to make up for the inability to hire. Presumably, changes that were more directly within the IT leader's control and had a less visible or immediate impact on the IT organization's constituents were easier to implement. The changes discussed above also all have the ability to produce cost savings that can be realized quickly, are easy to capture, and don't require an up-front investment.

### Cost Center or Area for Investment

IT leaders have often questioned whether institutions view technology as an asset that should be invested in to gain larger benefits or a necessary cost of operations that should be minimized to the greatest extent possible. To get a sense of which perspective prevailed during the recession, we asked respondents to express their agreement with statements that their institutions were investing in IT as a means to reduce the costs of an education, to lower administrative costs, and to increase revenues. Respondent perceptions seem to lean against the notion that institutions were treating IT as an investment in these areas; only the item about investing in IT to lower administrative costs averaged an above-neutral response, and none rose to the level of a mean "agree" (see Table 4).

**Table 4. Respondents' Investments in IT**

My institution is investing in IT as a means to:	Mean*	Std. Deviation
Lower its administrative costs (N = 318)	3.24	1.022
Increase revenues (N = 317)	2.83	1.050
Reduce the cost of education (N = 316)	2.58	0.990

*\*Scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree*

Among all respondents, about half (50%) agreed or strongly agreed that their institutions were investing to lower administrative costs. In comparison, 20% agreed or strongly agreed that their institutions were investing in IT as a means of reducing the costs of an education. Likewise, only a minority of respondents (32%) agreed or strongly agreed that their institutions were investing in technology as a means to increase revenues.

Respondents who agreed or strongly agreed that their institutions valued innovation also reported higher mean agreement that their institutions were investing in IT to lower the costs of administrative operations and as a means to increase revenues. These same respondents also disagreed less strongly on average that their institutions were investing in IT to reduce the costs of education. We also found a relationship between reported institutional goals for IT and mean agreement that institutions were investing in IT to increase revenues. Respondents who identified their institutions' IT goals as either furthering strategic goals or creating institutional competitive advantage reported higher mean agreement that their institutions were investing in IT to increase revenues than did those where the goals were providing reliable infrastructure/services at the lowest possible cost or providing appropriate IT based on user needs. While the mean agreement was higher where goals were strategic or competitive in nature, it was still barely neutral and seemed to fall short of an aggressive endorsement of investment in IT as a strategic asset to grow revenue.

## Adequacy of IT Funding

We asked all respondents regardless of how their central IT funding had changed since FY2007–2008 to evaluate the adequacy of their current funding for IT to meet several strategic and tactical objectives. Overall, respondents painted a fairly pessimistic view of funding adequacy. Mean agreement was highest that funds were adequate to maintain critical IT operations reliably and to keep pace with vendor-mandated upgrades. Both had means that were about three-quarters of the way between neutral and agree, however. The items with the lowest means were the adequacy of funds to respond to new user needs and interests, and researching and experimenting with emerging technologies.

Respondents from institutions that had experienced a decrease in their central IT operating budget from FY2007–2008 reported lower mean agreement that their funding was adequate to meet several of the tactical and strategic objectives included in the survey. While means were still somewhat above neutral, respondents whose central IT operating budgets had decreased over the two-year period agreed less strongly that funding was adequate to maintain critical IT operations reliably and to keep current with vendor-mandated upgrades. Respondents with decreased central IT operating budgets also reported means between disagree and neutral that they had sufficient resources to implement their institutions' IT strategy. Those with increased budgets reported means for this statement that were between neutral and agree.

## Conclusions

Our research tells a number of important stories about the state of IT funding and the impact of the recession among our respondent institutions. Participating institutions faced fiscal challenges, and many have had to sustain their IT operations with the same or fewer resources for the past two years. However, the cuts in central IT operating budgets for the majority were relatively small compared with the severity of the economic downturn, and they were of a magnitude that would not fundamentally alter how IT is managed. The tactics institutions reported employing to reduce their IT costs were in keeping with the size of the reductions that had to be made. Most institutions employed fairly traditional measures to reduce their IT operating budgets, such as hiring freezes, reduced outlays for training and travel, or deferred purchases of new hardware and software. More aggressive and admittedly less proven cost savings tactics such as outsourcing, cloud sourcing, shared services, or organizational change were pursued less frequently. As a result, most respondents felt that they had reduced their costs but not substantially changed how IT was managed.

Whether we wasted the crisis we were given or took an appropriately measured response calibrated to the severity of the budget decline is a question open to debate. Many institutions did feel that the crisis had provided them a means to make changes that otherwise would not have been possible. No doubt there are many examples of duplicate systems being eliminated, seldom used systems being eliminated, or new enterprise services being introduced that would not have happened as fast without the changed environment created by the recession. But these examples fall short of fundamental change.

The fact that more change did not occur may have several root causes. For many this was a period of belt tightening and not a crisis. IT leaders may have assessed the platform for change the crisis created and concluded that it did not give them license to move more aggressively. Or, the absence of more institutions adopting more aggressive measures might be a sign that our respondents lack confidence in the solutions themselves. Many IT leaders may have concluded that the potential for savings was too uncertain or the magnitude too small relative to the risks and costs of adoption to significantly accelerate adoption of cloud computing, outsourcing, shared services, or more aggressive standardization of services within the institution.

The more pressing question is what might happen next. There is much discussion about the economy recovering to a new normal characterized by less consumer spending, slower growth, and higher than usual rates of unemployment. There is concern that the U.S. economy could experience a “double dip” recession if economies worldwide are unable to manage their debts. What might this mean for higher education? Before the recession began, there was concern over the long-term sustainability of higher education’s finances. The rate of tuition increases continued to outpace inflation. Institutions had taken advantage of low costs of capital to significantly expand or modernize the campus physical plan. However, this expansion has created the need to divert an increasing portion of the operating budget to service debt. State support for higher education was declining before the recession, and falling state revenues will likely exacerbate this problem. While the stock market has recovered some of its value, it is expected to take many years for endowments to recover their losses. So, higher education’s revenues will be constrained, and its costs will be susceptible to increases in interest rates, energy prices, and health care and retiree benefit costs.

Persistent structural problems and a slowly recovering economy are likely to sustain higher education's focus on its costs for many years to come. In this regard, higher education IT organizations should sustain their focus on IT cost management and prepare for budgets that will grow slowly and may endure additional cuts. However, the coming years need not be a period of decline and retrenchment for IT. The long-term fiscal pressures institutions will face should increase their interest in using technology to address their most strategic issues. IT leaders have an opportunity to convince their institutions that technology is an area of investment and not just a cost to be minimized in tough budget times. IT will be highly relevant to institutions' efforts to

- secure new revenue streams through online learning,
- improve the utilization of assets through more efficient administrative operations,
- improve student retention and reduce the time to graduation through better systems to track academic progress and improve advising, and
- leverage data and analytics to support improved decision making.

It behooves IT leaders to seize this opportunity to help their institutions to define the future by engaging in strategic IT planning processes, maintaining effective IT governance practices, and readying the IT organization with the skills and staffing to support new strategic initiatives in technology. At the same time, IT leaders can't take their focus off IT cost management. Ongoing efforts to manage IT costs will help IT organizations regain the flexibility to invest in innovation and to seed initiatives to improve institutional productivity or support new revenue opportunities. Efforts to manage IT costs will help institutions to continue to realign their IT spending to reduce the costs of providing commodity technologies and redistribute resources to more strategic technology projects. Finally, such efforts will burnish the credibility of the IT organization and the IT leadership and open the door to greater success in asking for resources to invest in technology.

## Endnotes

1. Sam Dillon and Katie Zezima, "Bank Limits Fund Access by Colleges, Inciting Fears," *New York Times*, October 1, 2008, <http://www.nytimes.com/2008/10/02/education/02college.html>.
2. Moody's, *U.S. Colleges and Universities Rating Roadmap: Focus on Special Risks During Recession and Credit Crisis* (Moody's Investor Services, April 2009): 3.

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*A copy of the full study referenced above is available via subscription or purchase through the EDUCAUSE Center for Applied Research ([educause.edu/ecar](http://educause.edu/ecar)).*

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